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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,586	02/22/2002	Tatsuo Yajima	219227US2 CONT	7302

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EXAMINER

STEVENS, THOMAS H

ART UNIT PAPER NUMBER

2123

DATE MAILED: 12/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/079,586

Applicant(s)

YAJIMA, TATSUO

Examiner

Thomas H. Stevens

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

1. Claims 1-3, 5-9, and 11-12 were examined.
2. Claims 4 and 10 were cancelled.

### ***Section I: Supplemental Office Action***

3. The following action supercedes the action sent 12/01/05 by which finality was incorrectly stated.

### ***Section II: Non-Final Office Action (3<sup>rd</sup> Office Action)***

#### ***Claim Interpretation***

4. Office personnel are to give claims their "**broadest reasonable interpretation**" in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See \*also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow") .... The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed .... An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process. The examiner

interprets the dynamic perspective distortion as the inspection item of a movable body such as an automobile to evaluate the static perspective distortion of an object in a stationary state when it is seen through a sheet of glass, to evaluate the perspective distortion of the object seen through the glass sheet in a state of being driven (specification: pg.3, lines 3-9). Furthermore, examiner interprets the virtual evaluation as the orthogonal grid pattern (specification: pg. 5, lines 7-10).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 5-9, and 11-12 rejected under 35 U.S.C. 102(b) as being disclosed by Kurumisawa et al. "Development of an Optical Distortion Measuring Technique" (1999) (hereafter Kurumisawa). Kurumisawa discloses new method of measurement and evaluation for an optical distortion of windshield glass (abstract).

Claim 1. A method for evaluating dynamic perspective distortion a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), comprises the steps of: producing a model of three-dimensionally curved shape of transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) having refractive index (inherent to the science of optics: Snell's Law); determining an eye point (pg.302, figure 14 with pg. 303,6-14) at side of the model of three-dimensionally curved shape

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and a virtual evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered pattern with glass (orthogonal) and left and right columns, 2nd and 1st paragraphs, respectively)) having a plurality of evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13) at the other side of the model dimensionally curved shape; observing, from the eye point (pg.302, figure 14 with pg. 303,6-14), three-dimensionally the virtual evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered pattern with glass (orthogonal) and left and right columns, 2nd and 1st paragraphs, respectively)) through the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), extracting perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13) as images evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13), obtained by observing through the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), a two-dimensional picture image obtained by the observation, and obtaining distance values of adjacent perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13); determining an optional value be a reference value (pg.300, right column, optical distortion equation with figure 5:  $I_{min}$ )), among the distance values, and evaluating the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) by obtaining ratios (pg.300, right column, optical distortion equation with figure 5)) of the distance values to the reference value (pg.300, right column, optical distortion equation with figure 5:  $I_{min}$ )).

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Claim 2. The method of Claim 1, wherein: the dynamic perspective distortion the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) evaluated based on the rate of change of the ratios (pg.300, right column, optical distortion equation with figure 5)) of the distance values to the reference value (pg.300, right column, optical distortion equation with figure 5:  $l_{min}$ )).

Claim 3. The method of Claim 1, wherein: the minimum value among the distance values selected as the reference value (pg.300, right column, optical distortion equation with figure 5:  $l_{min}$ )), and the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is evaluated based on the maximum value among the ratios (pg.300, right column, optical distortion equation with figure 5)) of the distance values with respect to the minimum value.

Claim 5. The method of Claim 1, wherein: the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is at least one selected from a glass sheet and a resinous plate.

Claim 6. The method of a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) according to Claim 1, wherein: the image seen through the model of three-dimensionally curved shape of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is animation.

Claim 7. A method for correcting three-dimensionally curved shape of a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), which comprising: the steps of: step of producing a model of three-dimensionally curved shape of a transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) having a predetermined refractive index (inherent to the science of optics: Snell's Law); determining an eye point (pg.302, figure 14 with pg. 303,6-14) at a side of the model of three-dimensionally curved shape and a virtual plurality of evaluation the model of three-evaluation pattern having a points at the other side dimensionally curved shape; observing, from the eye point (pg.302, figure 14 with pg. 303,6-14), the virtual evaluation pattern (See claim interpretation; pg.300, figure 3 (checkered pattern with glass (orthogonal) and left and right columns, 2nd and 1st paragraphs, respectively)) through the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), extracting perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13) as images evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13), obtained by observing through the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10), in a two-dimensional picture image obtained by the observation , and obtaining distance values between adjacent perspective evaluation points (pg.302, left column, lines 10-22 with figures 11 and 13); the determining an optional value be a reference value (pg.300, right column, optical distortion equation with figure 5:  $l_{min}$ )), among these distance values; evaluating the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) by obtaining ratios (pg.300, right column,

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optical distortion equation with figure 5)) of the distance values the reference value (pg.300, right column, optical distortion equation with figure 5:  $I_{min}$ )), correcting the three-dimensionally curved the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) according to the evaluation.

Claim 8. The of Claim 7, wherein: the dynamic perspective shape distortion the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) evaluated based on the rate of change of the ratios (pg.300, right column, optical distortion equation with figure 5)) of the distance values the reference value (pg.300, right column, optical distortion equation with figure 5:  $I_{min}$ )).

Claim 9. The method of Claim 7, wherein: the minimum value among the distance values is selected as the reference value (pg.300, right column, optical distortion equation with figure 5:  $I_{min}$ )), and the dynamic perspective distortion of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is evaluated based on the maximum value among the ratios (pg.300, right column, optical distortion equation with figure 5)) the distance values with respect to the minimum value.

Claim 11. The method of Claim 7, wherein: the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is at least one selected from a plate glass sheet and a resinous plate (part of the windshield).



Claim 12. The method of Claim 7, wherein: the image seen through the model of three-dimensionally curved shape of the transparent body (See claim interpretation; pg.299, left column introduction, lines 8-10) is animation-displayed.

***Section III: Response to Applicant's Arguments (2<sup>nd</sup> Office Action)***

**101**

7. Applicant is thanked for addressing this issue. Rejection is withdrawn.

**102**

8. Applicant's arguments, see pages 6-12, filed 9/6/05, with respect to the rejections of claims 1-3, 5-9, and 11-12 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Kurumisawa et al.

***Citation to Relevant Prior Art***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US Patent 4,310,242: teaches an apparatus for analyzing the deleterious characteristics of optically transparent bodies, including distortion.

***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

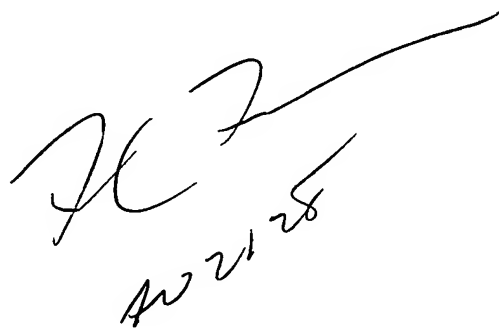
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If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Leo Picard ((571) 272-3749). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

November 21, 2005

TS

A handwritten signature, possibly "JC", is written in black ink. Below the signature, the date "11/21/05" is written in a similar cursive style.